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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

MURRAY ET AL.

APPLICATION NO: TO BE ASSIGNED

FILED: OCTOBER 22, 2001

FOR: METHODS FOR USE OF MPL LIGANDS WITH PRIMITIVE HUMAN
STEM CELLS

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination of this application, please amend the specification as follows:

Please cancel claims 1-62 of the specification. Please add the following new claims 63-65:

63. A method for genetically modifying a population of human hematopoietic stem cells, comprising the steps of:

culturing *in vitro* an initial hematopoietic cell population comprising human CD34⁺Thy-1⁺ hematopoietic stem cells in a medium comprising a myeloproliferative receptor (mpl) ligand, wherein said population of hematopoietic stem cells proliferates to expand the number of CD34⁺ cells in a final cell population;

transducing said hematopoietic cell population with a viral vector comprising a gene of interest, wherein said final cell population comprises human hematopoietic stem cells that have been genetically modified by integration of said gene of interest into the cells; and

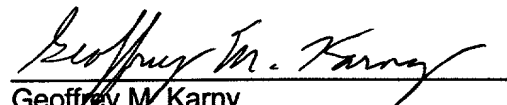
transplanting said final cell population into a recipient to provide long term hematopoietic reconstitution.

64. The method of claim 63, wherein said initial hematopoietic cell population is obtained from said recipient.

65. The method of claim 64, wherein said gene of interest is an antisense or ribozyme sequence.

Respectfully submitted,

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